

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Original) A system to provide automated services to heterogeneous devices in a network environment, comprising:
 - a device agent residing on each of the heterogeneous devices;
 - a device communicator to register and synchronize the devices via each of the device agents; and
 - a portal server to interface multiple content sources on behalf of the devices, wherein the devices communicate with the portal server via each of the device agents and the device communicator.
2. (Original) The system of claim 1, wherein at least two of the devices support different protocols and connectivities.
3. (Original) The system of claim 1, wherein the devices include at least one of a desktop computer, a laptop computer, a wireless device, a personal data assistant, a handheld GPS unit, an in-car navigation system, a cellular telephone, a digital camera, a MP3 player, a digital video recording device, a printer, and a home appliance having a processor.
4. (Original) The system of claim 1, wherein the services include at least one of downloading data and providing data synchronization.
5. (Original) The system of claim 1, wherein the services include at least one of locating a service provider, ordering at least one of a product and a service, purchasing at least one of the product and the service, locating a nearby service establishment, downloading information, and updating information.
6. (Original) The system of claim 1, wherein the network environment includes at least one of a wired connection and a wireless connection.

7. (Original) The system of claim 1, wherein the network environment includes at least one of a personal area network, a local area network, and a wide area network.

8. (Original) The system of claim 1, wherein the device agent provides a single unified messaging interface.

9. (Original) The system of claim 8, wherein the single messaging interface is one of an XML interface and a compressed XML interface.

10. (Original) The system of claim 9, wherein the single unified messaging interface allows future expansion capabilities without a fixed binding of a function call for an application programming interface.

11. (Original) The system of claim 1, wherein the device communicator is configured to store device capabilities during a registration of the devices.

12. (Original) The system of claim 11, wherein the device capabilities include a connectivity capability.

13. (Original) The system of claim 12, wherein the connectivity capability includes at least one of a ZigBee, a Bluetooth, an IrDA, a GPRS, a GSM, a CDMA, and an Ethernet capability.

14. (Original) The system of claim 11 wherein the device capabilities include at least one supported protocol.

15. (Original) The system of claim 14, wherein the at least one supported protocol includes at least one of HTTP, FTP, SNMP, SOAP, XML, RMI, and IIOP/CORBA.

16. (Original) The system of claim 11, wherein the device capabilities include at least one of a memory size, a screen size, a computing power, a storage capability, an audio capability, and a video capability.

17. (Original) The system of claim 1, wherein the device communicator is configured to deliver software updates to the devices via the device agent.

18. (Original) The system of claim 1, wherein the device communicator is configured to deliver the software updates when the device is available.

19. (Original) The system of claim 1, wherein the portal server is configured to at least one of aggregate and cache data from the multiple content sources.

20. (Original) The system of claim 1, wherein the portal server is configured to maintain data persistency so that devices that are not always on have access to a most recent snapshot.

21. (Original) The system of claim 1, wherein at least one of the multiple content sources resides on a wide area network.

22. (Original) The system of claim 1, wherein the at least one of the multiple content sources resides on the Internet.

23. (Original) A method to provide automated services to heterogeneous devices in a network environment across multiple platforms, comprising:

providing a single messaging interface on each device via a device agent, which communicates with a device communicator via a device-specific connectivity and communication protocol;

registering each of the devices via the device communicator to record device capabilities of each of the devices;

aggregating data from multiple content sources via a portal server;

caching the data; and

downloading and synchronizing the data via the device communicator.

24. (Original) The method of claim 23, further comprising:

issuing a service request via the single messaging interface;

sending the request from the device agent to the device communicator;

modifying the request to conform to the network environment;

forwarding the request to a service provider via the portal server; and

receiving a reply from the service provider via the portal server.

25. (Original) A system to provide automated services to heterogeneous devices in a network environment across multiple platforms, comprising:

- a single messaging interface on each device via a device agent which communicates with a device communicator via a device-specific connectivity and communication protocol;
- an arrangement to register each of the devices via the device communicator to record device capabilities of each of the devices;
- an arrangement to aggregate data from multiple content sources via a portal server;
- an arrangement to cache the data; and
- an arrangement to download and synchronize the data via the device communicator.

26. (Original) The system of claim 25, further comprising:

- an arrangement to issue a service request via the single messaging interface;
- an arrangement to send the request from the device agent to the device communicator;
- an arrangement to modify the request to conform to the network environment;
- an arrangement to forward the request to a service provider via the portal server; and
- an arrangement to receive a reply from the service provider via the portal server.

27. (New) The system of claim 1, wherein:

- the registration of the heterogeneous devices by the device communicator includes the device communicator recording in a device table a list of applications supported by at least one of the heterogeneous devices;

- a first one of the heterogeneous devices triggers the device agent residing on the first heterogeneous device to send a request for an application;

- the device agent residing on the first heterogeneous device responsively transmits the request to the device communicator;

- the device communicator searches the device table to locate a second one of the heterogeneous devices that supports the application;

- the device communicator forwards the request to the second heterogeneous device;
- responsive to the forwarded request, the second heterogeneous device transmits a response to the device communicator; and

- the device communicator forwards the response to the first heterogeneous device.

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28. (New) The system of claim 1, wherein the device communicator resides on one of the heterogeneous devices.

29. (New) The system of claim 28, wherein the heterogeneous devices are arranged as a peer-to-peer (P2P) network.